

# Azure VM Infrastructure

Here's a typical infrastructure that can be used to host the iRely application in Microsoft Azure.

## Virtual Machine

- **App Server**
  - **Operating System**
    - Windows Server 2022
  - **Size**
    - 8 vCPUs, 64 GB memory (e.g. E8as\_v4)
  - **OS Disk**
    - Premium SSD - 128 GB
  - **Data Disk**
    - Premium SSD - 512 GB
- **Database Server**
  - **Operating System**
    - Windows Server 2022
  - **Database**
    - SQL Server 2022 Standard Edition for production
    - [SQL Server 2022 Developer Edition](#) is free and can be used for testing
  - **Size**
    - 8 vCPUs, 64 GB memory (e.g. E8as\_v4)
  - **OS Disk**
    - Premium SSD - 128 GB
  - **Data Disk**
    - Premium SSD - 512 GB (or larger based on data)

## Networking

- **Resource Group**
  - Organize and manage your Azure resources.
- **Virtual Network**
  - Create a virtual network to isolate your environment.
- **Network Security Group (NSG)**
  - Configure rules to control inbound and outbound traffic, protecting the VMs.
- **Network Interface (NIC)**
  - The interconnection between a virtual machine and a virtual network.
- **Public IP Address**
  - Assign if direct external access is required.

## Other Considerations

- **Premium SSD**
  - Use for OS and data disks to ensure high performance and low latency.
- **Azure Backup**
  - Enable for regular backups of your VMs and data.
- **Azure Site Recovery (ASR)**
  - ASR is a best-in-class disaster recovery solution hosted in Azure
  - A near-constant data replication process makes sure copies are in sync
- **VPN**
  - Virtual Private Network is optional.
- **End Point Protection (EDR)**
  - Optionally install a good EDR solutions like SentinelOne.